

Species dubiæ.

8. *Strongylus*. Cavity of thorax of moor-buzzard (*Buteo rufus*).
 9. ———. Trachea of turkey (*Meleagris Gallopavo*).

‘the gapes.’ I have found three specimens, each upwards of half an inch in length, in the trachea of a chicken which died of the gapes a fortnight after being hatched, and was informed that it had manifested symptoms of the disease when only five days old.

In the specimens which I have examined the male portion of the animal (as it has been called) was of a paler colour than the other, and no trace of a convoluted tube was visible through its parietes, though very evident in the female portion.

[To be continued.]

XV.—*Abstract of a paper entitled “Account of a Botanical Tour in North Wales, the South of England and Jersey, during the months of August and September 1843.”* By R. GRAHAM, M.D., Professor of Botany in the University of Edinburgh*.

IN this communication the Professor only noticed such plants observed by him as are not natives of Scotland, are scarce there, or which otherwise possess interest from marked peculiarities of geographical distribution in the districts which he visited. The journey extended from Liverpool to Chester, and thence by St. Asaph to Bangor. From Bangor the Professor and his party walked up Carnedd Llewellyn, and by the slate quarries of Penrhyn to Llanberris, botanizing in the woods and valleys in the neighbourhood, ascending Snowdon from the west, and passing on to Capel Curig and the Devil’s Kitchen, from which they went by the mail to Birmingham. From Birmingham Dr. Graham proceeded to Dorsetshire and Jersey. Whatever was noticed regarding the vegetation elsewhere was seen only from the coach, or during the almost momentary stoppages at the stages. On returning from Jersey, a few hours were spent in a very hasty examination of the road-side in a corner of the Isle of Wight.

The following are the plants seen in the first half of the journey, and not truly wild in Scotland:—*Lactuca muralis*, in a little glen a few miles to the westward of Chester, and not again observed in the whole journey; and in the same place, *Tamus communis* (afterwards found to be very frequent further south); *Chlora perfoliata*, *Helminthia echinoides* (also profuse near Weymouth); *Diplotaxis tenuifolia*, abundant on the walls near Ches-

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ter; *Rosa arvensis*, *Nepeta cataria*; *Senecio tenuifolius*, abundant also further south, but native, as far as is known, in very few localities in Scotland; *Sedum dasyphyllum*, on walls at Conway; *Calamintha officinalis*, *Fœniculum vulgare* (also plentiful near Weymouth and in Jersey), *Orobanche barbata* in profusion, and *Verbena officinalis*.

The Welsh mountains, at least in August, possess very little interest to a Scotch botanist. The alpine species are few compared with the vegetation of the Grampians, and the number of specimens even of common species is very small. The valleys, however, contain in abundance several plants which are rare in Scotland, or which do not exist there as natives. Among these are *Poterium Sanguisorba*, *Serratula tinctoria*, *Campanula hederacea*. "*Thalictrum minus* is abundant in several places in Scotland, but we found it at the Devil's Kitchen, at a much higher elevation than I ever recollect seeing it before, except in Cunnamara in the west of Ireland. In the same station we also found *Arenaria verna*, a species which is very abundant near Edinburgh, but which I never before gathered on the west side of the island."

In the Botanic Garden at Birmingham a specimen of *Erodium Hymenodes* was pointed out, said to have been picked from among many others on the Flat Holmes in the Severn, and which the intelligent curator, Mr. Cameron, said had all the appearance of being a native specimen when brought to him. Mr. Cameron also pointed out a variety of *Sedum Telephium*, which he first observed in considerable quantity on the Titterstone Clee Hill, Shropshire, in 1839, at an elevation of 1400 feet, and had cultivated since 1840 without any alteration in its character except increase of size. It is distinguished from the ordinary state by its smaller fruit, its procumbent stems, and its long, slender, horizontal, underground stoloniferous shoots.

The plants which appeared characteristic of the neighbourhood of Cheltenham, Bristol and Bath were—*Viburnum Lantana*, *Clematis Vitalba*, *Pastinaca sativa*, and *Convolvulus Sepium*; the first three not belonging to the Flora of Scotland, and the last remarkable for its vast profusion in almost every hedge. These plants were observed along the whole route to Weymouth, and in addition, between Dorchester and Weymouth were seen *Cnicus acaulis* and *Campanula glomerata*; the latter, however, very small, or at most never acquiring the luxuriant appearance it has in the neighbourhood of Edinburgh. A few plants of *Carduus eriophorus* were seen by the road-side a little way to the southward of Bath.

One of the most interesting walks of the whole excursion was that of the 16th of August, along the beach parallel to the Chesil

Bank, as affording a collection of plants most unlike the Scottish Flora. The principal of these were, *Brachypodium pinnatum*, *Iris fœtidissima*, *Tamarix gallica* (certainly introduced), *Linum angustifolium*, *Linaria Elatine*, *Linaria spuria*, *Lathyrus Nissolia*, *Lathyrus Aphaca*, *Trifolium maritimum*, *Vicia bithynica*, *Ervum tetraspermum*, *Helminthia echioides*, *Petroselinum segetum* and *Sison Anomum*. None of these, it is believed, really belong to the Scottish Flora, and not above one or two, if any, have been permanently naturalized in a few stations in Scotland. Besides these, there were found on the same ground the following plants which are wild, some perhaps only naturalized, in a few localities to the north of the Tweed:—*Hordeum pratense*, *Sinapis nigra*, *Trifolium fragiferum*, *Medicago maculata*, *Vicia lutea*, *Anthemis nobilis*, *Serratula tinctoria*, *Cichorium Intybus*, *Poterium Sanguisorba*, *Œnanthe pimpinelloides*, *Linaria vulgaris*, var. *Peloria*, and a single specimen of a remarkable variety of *Plantago Coronopus* with many paniced heads.

The walk on the 17th of August was from Dorchester to Wareham, and was by no means so productive as that of the day before, yet several plants unknown to or scarce in the Flora of Scotland were observed. Of these, some have been named already, others were the following:—*Cornus sanguinea*, *Scabiosa columbaria*, *Drosera longifolia*, *Silene anglica*, *Galeopsis Ladanum*, *Antirrhinum Orontium*, *Ulex nanus* (a variety perfectly procumbent, very different from the Scotch or Irish plant), *Picris hieracioides*, *Cuscuta Epithymum*. These last two plants are said by Sir Wm. Hooker to be frequent in Scotland, but Dr. Graham has never seen either, nor any species of *Cuscuta* there, not evidently introduced.

The walk on the 18th of August was from Winfrith to Osmin-ton Mill, partly by lanes, partly over chalk downs, and by the cliffs on the shore. The only plants gathered and not before mentioned, which are not wild in Scotland, though certainly so in the stations where they were then seen, were *Ligustrum vulgare*, *Asperula cynanchica*, *Inula Conyza* and *Euphorbia amygdaloides*. Others found only in limited stations in Scotland were, *Campanula Trachelium*, *Silau pratensis* and *Euphorbia portlandica*.

The next walk was on the 24th of August, about half way up the east coast of the Isle of Jersey, where the following plants were gathered:—*Bromus diandrus*, *Cyperus longus*, *Chenopodium murale*, *Scilla autumnalis*, *Rumex pulcher*, *Marrubium vulgare*, *Matthiola sinuata*, *Senecio vulgaris*, var. *radiatus*, *Euphorbia Paralias*, *Atriplex laciniata*, *Erodium moschatum*. It was remarked, that of the three species of *Papaver*—*P. Argemone*, *P. dubium* and *P. Rhæas*—so abundant in the neighbourhood of Edinburgh, only the second was seen in Wales, only the third in the south of England, and that *P. dubium* again appeared in Jersey. On the

26th, accompanied by Dr. Macreight, the walk was along St. Aubin's Bay by La Haule, across the Quenvais to St. Ouen's Bay and the village of St. Ouen. In this route the most interesting plants gathered, and not already named, were, a densely tufted glaucous species of *Festuca*, with short, erect, very rigid and sharp subulate leaves, considered a form of *Festuca ovina*, but very unlike any form of that species which has been observed anywhere else; *Schæenus nigricans*, *Polycarpon tetraphyllum*, *Scirpus pungens*; *Scirpus maritimus*, a variety with unusually elongated peduncles and ovato-lanceolate attenuated spikes; *Armeria plantaginea*, varying considerably in the breadth of its leaves, but always distinguishable from *A. maritima* by the want of hairiness upon the scape; *Juncus acutus*, *Polygonum maritimum*, *Dianthus prolifer*, *Oxalis corniculata*, *Ranunculus hirsutus*, *Mentha rotundifolia* and *Orobanche Eryngii*? profuse on drift-sand in St. Ouen's Bay. "In adopting this name I by no means wish to give an opinion as to its propriety. It is, I confess, only an attempt to escape from the necessity of intermeddling with a subject in almost hopeless confusion. The species of *Orobanche* are, to say the least, separated by ideal boundaries, and the principle in which I seem to acquiesce by the name I have here given, namely to characterize species by the plants on which they are parasitical, has always appeared to me erroneous. Vaucher found an *Orobanche* parasitical on *Eryngium campestre* in the southern provinces of France, and he called it *O. Eryngii*, and the designation is adopted in the 'Botanicon Gallicum.' Our plant is certainly parasitical on *E. maritimum*, and upon this very slender ground, for I have not seen a French specimen, I have given it the same name. It is only half parasitical, as I doubt not are all the species; half parasitical in a different sense to that in which the same thing may be said of the species of *Cuscuta*. These are at one period of their existence wholly terrestrial, and afterwards wholly parasitical; but the *Orobanche* is permanently attached to the extremity of a root of *Eryngium*, which is there thickened and terminated abruptly, but it sends its own roots into the sand all around. The roots were so deep in the loose sand, that we failed in many attempts to raise an entire plant of *Eryngium* with the parasite attached to it; but Dr. Macreight showed me, that by the peculiar and pungent taste, it was quite certain that the fragment of the root which we often got up with the *Orobanche* was that of *Eryngium maritimum*." Other plants of the same day's walk, either local in Scotland or not at all native there, were the following: *Sibthorpia europæa*, *Bartsia viscosa*, *Diplotaxis muralis*, *Coronopus didyma*, *Erigeron acris*, *Diotis maritima*, *Centaurea Calcitrapa*, *Spiranthes autumnalis*, *Amaranthus Blitum*, *Asplenium lanceolatum*, *Asplenium marinum*.

On the 2nd of September, again accompanied by Dr. Macreight, we walked by St. Brelade round the south-west corner of the island

to La Moye and the southern extremity of the Quenvais. The following plants were picked in this route: *Isolepis Savii*, *Rubia peregrina*, *Centunculus minimus*, *Echium violaceum*, *Datura Stramonium*; *Scilla autumnalis* in great profusion and beauty, both of its usual colour and also with white flowers; *Rumex maritimus*, *Silene nutans*, *Cistus guttatus*, *Antirrhinum Orontium*, *Trifolium subterraneum*, *Gnaphalium luteo-album*, *Hieracium umbellatum*. On other days in which a few minutes only could be given to botany, *Grammitis Ceterach* was picked from the churchyard wall of St. Saviour's, the only situation in which it was seen in the island; and in the same place what has been called *Mercurialis ambigua*, but there and everywhere else in Jersey every variety of form from this to the most usual condition of *Mercurialis annua* may be found; *Scrophularia Scorodonia* was met with in every lane; *Carex extensa* was gathered near Rozel Harbour. In a pasture field near La Haule was gathered *Verbascum nigrum*, in such variety as to show that the character of this species must have a wide range as to the shape of the leaves, the amount of tomentum, and the length of the petioles.

The 11th of September was the last day spent in Jersey, and a rapid glance was taken of the vegetation of the Town Hill and Gallows Hill in the immediate vicinity of St. Helier's. On the former was gathered *Crithmum maritimum* nearly two feet high, *Statice spathulata* of very large size and in very fine condition, *Atriplex portulacoides*, *Senebiera didyma* and *Polycarpon tetraphyllum*; the last two grow also in the less frequented streets of St. Helier's. On Gallows Hill were found *Herniaria glabra*, β *subciliata*, *Centaurea solstitialis*, and *Amaranthus Blitum* in better condition than elsewhere.

On leaving Jersey Dr. Graham and his friends went to Southampton, where they were met by Dr. Bell Salter, and, accompanied by him, went to Cowes and drove to Ryde, leaving the carriage only while ascending the hills. Even this glimpse of the vegetation of the Isle of Wight however was most interesting, and furnished a long list of South-of-England plants. *Gastridium lendigerum* had not been seen before, and is very common in the Isle of Wight. *Silauus pratensis* is a local plant in Scotland. From Dr. Bromfield specimens of *Cyperus longus*, *Chenopodium glaucum*, and *Calamintha officinalis* of unusual form and large size were received. Doubts were entertained of the specific identity of the last with the British plant already recognised as *Calamintha officinalis*; but it will probably turn out to be the extremity of a chain which may be traced into the usual form through a plant which in 1830 the late Mr. Christy gathered at Fishponds, Gloucester, and one which Mr. Roberts gathered at Craig Millar Castle near Edinburgh in 1836.